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RELATIONSHIP BETWEEN SOLUBLE P-SELECTIN LEVELS AND CLINICAL CHARACTERISTICS IN A PROSPECTIVE HEMODIALYSIS COHORT <u>Connie Rhee</u>[1], Amy You[1], Jennie Jing[1], Tracy Nakata[1], Nancy Lopez[1], Lidia Lou[1], Mary Veliz[1], Miguel Hernandez[1], Matthew Budoff[2], Danh Nguyen[1], Kam Kalantar-Zadeh[1] *[1]UC Irvine, Orange, CA; [2]LA Biomedical Research Inst., Torrance, CA*

Emerging data suggest that elevated levels of soluble P-selectin, a glycoprotein stored in platelet α-granules and endothelial cell Weibel Palade bodies, are associated with higher risk of cardiovascular disease and death in hemodialysis patients. Little is known about the clinical characteristics associated with higher P-selectin levels in this population. In cross-sectional analyses of 448 prevalent hemodialysis patients from the MADRAD study, we examined the associations between clinical characteristics and high vs. low P-selectin levels (highest vs. lowest two tertiles, respectively) using case-mix + laboratory logistic regression models (adjusted for age, sex, race,ethnicity, diabetes, vintage, vascular access, BMI, platelet count, serum albumin, IL-6). In case-mix+laboratory adjusted analyses, having underlying diabetes and higher platelet count, mean platelet volume, VLDL, cholesterol, triglyceride, and creatinine levels were associated with a higher likelihood of high P-selectin, while older age and higher iron saturation and adiponectin levels were associated with lower likelihood of high P-selectin (Table). In hemodialysis patients, positive associations of P-selectin with platelet markers and lipid levels, as well as inverse associations with age and iron parameters were observed. Further studies are needed to determine if P-selectin modulation improves outcomes in these patients.

	Odds Ratio (95% CI)	p-value
Age (Δ10 years)	0.83 (0.70-0.98)	0.03
Diabetes	1.77 (1.09-2.86)	0.02
Platelet count (Δ50 x10^9/L)	1.38 (1.16-1.64)	<0.001
Mean platelet volume (Δ1 fl)	1.31 (1.02-1.68)	0.04
Iron saturation (Δ10%)	0.80 (0.65-0.98)	0.03
Very low density cholesterol (Δ25mg/dl)	1.45 (1.10-1.91)	0.008
Total cholesterol (Δ50mg/dl)	1.36 (1.04-1.79)	0.03
Triglyceride (Δ50mg/dl)	1.17 (1.05-1.31)	0.005
Serum creatinine (Δ1mg/dl)	1.11 (1.02-1.21)	0.02
Adiponectin ((Δ10mcg/ml)	0.76 (0.60-0.96)	0.02